Ministry of Northern Development and Mines

Ontario

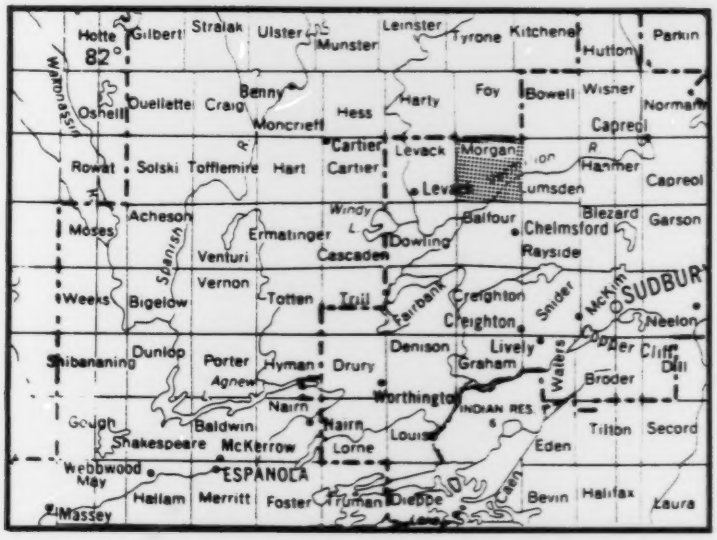
Mines and Minerals Division

ONTARIO GEOLOGICAL SURVEY

GEOLOGICAL DATA INVENTORY FOLIO 470

MORGAN TOWNSHIP

Compiled by the Staff of
the Resident Geologist's Office
Sudbury



LOCATION MAP

Scale: 1:1 013 760 or 1 inch to 16 miles

CANADA ONTARIO
Mineral Development
Exploitation Minérale

This project is part of the five year Canada–Ontario 1985 Mineral Development Agreement (COMDA), a subsidiary agreement to the Economic and Regional Development Agreement (ERDA) signed by the governments of Canada and Ontario.

90-00711/

NTS Number 41 I/11

Mining Claim Map Number M.873

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STATEMENT: This inventory is unedited. Discrepancies may occur for which the Ontario Geological Survey does not assume liability. Information from this source may be quoted if credit is given. Reference to this inventory should be made as follows:

Ontario Geological Survey
1989: Morgan Township, Ontario Geological Survey, Geological Data Inventory Folio 470, compiled by the staff of the Resident Geologist's Office, Sudbury; 24 pages and 2 Maps.

Original Compilation by: Lacey, J. Kerry, April, 1988

Date	Page Revised	Revised by

Date	Page Revised	Revised by

CONVERSION FACTORS FOR MEASUREMENTS IN ONTARIO GEOLOGICAL SURVEY PUBLICATIONS

If the reader wishes to convert imperial units to SI (metric) units or SI units to imperial units the following multipliers should be used:

CONVERSION FROM SI TO IMPERIAL			CONVERSION FROM IMPERIAL TO SI		
SI Unit	*Multiplied by*	*Gives*	*Imperial Unit*	*Multiplied by*	*Gives*
		LENGTH			
1 mm	0.039 37	inches	1 inch	**25.4**	mm
1 cm	0.393 70	inches	1 inch	**2.54**	cm
1 m	3.280 84	feet	1 foot	**0.304 8**	m
1 m	0.049 709 7	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	**1.609 344**	km
		AREA			
1 cm^2	0.155 0	square inches	1 square inch	**6.451 6**	cm^2
1 m^2	10.763 9	square feet	1 square foot	**0.092 903 04**	m^2
1 km^2	0.386 10	square miles	1 square mile	2.589 988	km^2
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
		VOLUME			
1 cm^3	0.061 02	cubic inches	1 cubic inch	**16.387 064**	cm^3
1 m^3	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m^3
1 m^3	1.308 0	cubic yards	1 cubic yard	0.764 555	m^3
		CAPACITY			
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	**4.546 090**	L
		MASS			
1 g	0.035 273 96	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 75	ounces (troy)	1 ounce (troy)	**31.103 476 8**	g
1 kg	2.204 62	pounds (avdp)	1 pound (avdp)	**0.453 592 37**	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	907.184 74	kg
1 t	1.102 311	tons (short)	1 ton (short)	0.907 184 74	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	1016.046 908 8	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	1.016 046 908 8	t
		CONCENTRATION			
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

1 ounce (troy)/ton (short)	20.0	pennyweights/ton (short)
1 pennyweight/ton (short)	0.05	ounce (troy)/ton (short)

One gram(g) per tonne is equivalent to one part per million (1 ppm).

NOTE–Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries published by The Mining Association of Canada in co-operation with the Coal Association of Canada.

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ACCOMPANYING MAPS

Property Location Map 1

Exploration Data Map 1

Map Scale 1: 31 680 or 1 inch to ½ mile

DATA SOURCES CHECK LIST

NOTE: The following sources have been searched to compile the data for this area. If no reference data was found the appropriate box is marked 'no'; if reference data was found, the box is marked 'yes'.

All reference data found are included in the following pages. If the box is blank, the data source has not yet been searched. If the box is marked N.A., the source item is Not Applicable to this area and therefore not searched.

	SOURCES OF DATA	Data	Initial
1	Resident Geologist's Office Files	Yes	K.L.
2	Assessment Files Research Office, Toronto	N.A.	K.L.
3	ODM General Index; 9 Volumes	Yes	K.L.
4	Catalogue of Airborne Geophysical Surveys (ODM)	No	K.L.
5	ODM Mineral Resources Circulars and OGS Mineral Deposits Circulars	No	K.L.
6	ODM Industrial Mineral Reports	No	K.L.
7	Bibliography of Post Precambrian Theses - Karrow (ODM MP 1)	N.A.	K.L.
8	Bibliography of Precambrian Theses - Ginn (ODM MP 2)	Yes	K.L.
9	Newspaper Clippings File	Yes	K.L.
10	GSC Index to Publications	Yes	K.L.
11	OGS Index to Published Maps and Reports - MP 77 and Supplements to MP 77	Yes	K.L.
12	OGS Index Maps	Yes	K.L.
13	Source Mineral Deposit Records (O.G.S.)	No	K.L.
14	Author - Subject Articles File	Yes	K.L.
15	Miscellaneous Papers: ODM & OGS	Yes	K.L.
16	ODM Geological Circulars: OGS Study Series	Yes	K.L.
17	ODM Preliminary Reports: ODM Bulletins	Yes	K.L.
18	ODM – OGS Open File Reports	Yes	K.L.
19	OGS Northern Ontario Engineering Geology Terrain Studies	Yes	K.L.
20	OGS Aggregate Resources Inventory Papers	No	K.L.
21	OGS Mineral Potential Maps	Yes	K.L.
22	Theses on File, Sudbury	Yes	K.L.
23	Aerial Photographs on file, Sudbury	Yes	K.L.

METALS AND MINERALS REFERENCES LIST

- Δ anh . . . . . Anhydrite
- Δ ank . . . . . Ankerite
- Δ anna . . . . . Annabergite
- Δ ap . . . . . Apatite
- Δ arg . . . . . Argentite
- Δ As . . . . . Arsenic
- Δ asp . . . . . Arsenopyrite
- Δ asb . . . . . Asbestos
- Δ ba . . . . . Barite
- Δ be . . . . . Beryl
- Δ Bi . . . . . Bismuth
- Δ bn . . . . . Bornite
- Δ bran . . . . . Brannerite
- Δ bruc . . . . . Brucite
- Δ Cd . . . . . Cadmium
- Δ calc . . . . . Calcite
- Δ carb . . . . . Carbonate
- Δ cel . . . . . Celestite
- Δ cc . . . . . Chalcocite
- Δ cp . . . . . Chalcopyrite
- Δ ch . . . . . Chert
- Δ clay . . . . . Clay
- Δ Co . . . . . Cobalt
- Δ cob . . . . . Cobaltite
- Δ cb . . . . . Columbite
- Δ Cu . . . . . Copper
- Δ cor . . . . . Corundum
- Δ dol . . . . . Dolomite
- Δ ep . . . . . Epidote
- Δ ery . . . . . Erythrite
- Δ fel . . . . . Feldspar
- Δ fl . . . . . Fluorite (flurospar)
- Δ fu . . . . . Fuchsite
- Δ gn . . . . . Galena
- Δ gt . . . . . Garnet
- Δ goe . . . . . Goethite
- Δ Au . . . . . Gold
- Δ gf . . . . . Graphite
- Δ gl . . . . . Gravel
- Δ gyp . . . . . Gypsum
- Δ hem . . . . . Hematite
- Δ il . . . . . Ilmenite
- Δ Fe . . . . . Iron
- Δ IF . . . . . Iron Formation
- Δ jas . . . . . Jasper
- Δ kaol . . . . . Kaolinite (kaolin)
- Δ ky . . . . . Kyanite
- Δ Pb . . . . . Lead
- Δ lim . . . . . Limonite
- Δ Li . . . . . Lithium
- Δ mgst . . . . . Magnesite
- Δ mag . . . . . Magnetite
- Δ mc . . . . . Malachite
- Δ Mn . . . . . Manganese
- Δ mb . . . . . Marble
- Δ mar . . . . . Marcasite
- Δ ma . . . . . Marl
- Δ mi . . . . . Mica
- Δ ml . . . . . Millerite
- Δ mo . . . . . Molybdenite
- Δ Mo . . . . . Molybdenum
- Δ mon . . . . . Monazite
- Δ ne . . . . . Nephelite (nepheline)
- Δ nc . . . . . Niccolite
- Δ Ni . . . . . Nickel
- Δ Nb . . . . . Niobium
- Δ Pd . . . . . Palladium
- Δ peat . . . . . Peat
- Δ pent . . . . . Pentlandite
- Δ Pt . . . . . Platinum
- Δ py . . . . . Pyrite
- Δ pyl . . . . . Pyrochlore
- Δ pyrl . . . . . Pyrolusite
- Δ po . . . . . Pyrrhotite
- Δ q . . . . . Quartz
- Δ qcv . . . . . Quartz carbonate vein
- Δ ra . . . . . Radioactive minerals
- Δ RE . . . . . Rare Earths
- Δ sd . . . . . Sand
- Δ sgl . . . . . Sand and gravel
- Δ ss . . . . . Sandstone
- Δ scap . . . . . Scapolite
- Δ shee . . . . . Scheelite
- Δ serp . . . . . Serpentine
- Δ sh . . . . . Shale
- Δ sid . . . . . Siderite
- Δ si . . . . . Silica
- Δ Ag . . . . . Silver
- Δ sl . . . . . Slate
- Δ sm . . . . . Smaltite
- Δ sod . . . . . Sodalite
- Δ spec . . . . . Specularite
- Δ sp . . . . . Sphalerite
- Δ spd . . . . . Spodumene
- Δ staur . . . . . Staurolite
- Δ stib . . . . . Stibnite
- Δ st . . . . . Stone
- Δ talc . . . . . Talc
- Δ Te . . . . . Tellurium
- Δ td . . . . . Tetrahedrite
- Δ th . . . . . Thorite
- Δ Th . . . . . Thorium
- Δ thuc . . . . . Thucholite
- Δ ti . . . . . Titanite
- Δ Ti . . . . . Titanium
- Δ tour . . . . . Tourmaline
- Δ trap . . . . . Trap rock
- Δ W . . . . . Tungsten
- Δ uran . . . . . Uraninite
- Δ U . . . . . Uranium
- Δ verm . . . . . Vermiculite
- Δ Y . . . . . Yttrium
- Δ Zn . . . . . Zinc
- Δ zr . . . . . Zircon

Solid triangles indicate metal and mineral occurrences shown on the accompanying maps.

MORGAN TOWNSHIP

MINERAL OCCURRENCES

Map Ref. Letter	Name(s)	Mineralization	Source Mineral Deposit Record	References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports	Additional References and/or Remarks

GDIF FORM NO. 1

4 MORGAN TOWNSHIP

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE	COMPANY/AUTHOR (file number)	GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY			
1	Falconbridge Nickel Mines Ltd. (Morgan 0019-A1)				83															
2	Falconbridge Nickel Mines Ltd. (Morgan 0018)	82																		
3	Falconbridge Nickel Mines Ltd. (Morgan 0012-B1)	72				72						72								
4	Falconbridge Nickel Mines Ltd. (Morgan 0011-B1)				51-55															
5	Falconbridge Nickel Mines Ltd. (Morgan 0011-B1)				68 72															
6	Falconbridge Nickel Mines Ltd. (Morgan 0011-B1)				68															
7	Falconbridge Nickel Mines Ltd. (Morgan 0014-C1)				58 61															
8	Falconbridge Nickel Mines Ltd. (Morgan 0014-C1)				60 61															
9	Falconbridge Nickel Mines Ltd. (Morgan 0014-C1)				61															

GDIF FORM NO. 2

MORGAN TOWNSHIP

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY			
COMPANY/AUTHOR (file number)																				
10	Falconbridge Nickel Mines Ltd. (Bowell 0017)	57																		
11	Falconbridge Nickel Mines Ltd. (Dowling 0018-A1)	52							52											
12	Falconbridge Nickel Mines Ltd. (Morgan 0015)								80	80										
13	Inco Ltd. (Morgan 0012-A1)											74	74							
14	Inco Ltd. (Morgan 0010)				50															
15	Inco Ltd. (Morgan 0010)				50															
16	Inco Ltd. (Morgan 0010)				50 51															
17	Inco Ltd. (Morgan 0010)				50															
18	Inco Ltd. (Morgan 0010)				50															
19	Inco Ltd. (Morgan 0010)				50															
20	Inco Ltd. (Morgan 0010)				50															
21	Inco Ltd. (Morgan 0010 & Morgan 0013-B1)				50-51															

GDIF FORM NO. 2

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY			
COMPANY/AUTHOR (file number)																				
22	Inco Ltd. (Morgan 0010)				50															
23	Inco Ltd. (Morgan 0010)				50															
24	Inco Ltd. (Morgan 0010)				63															
25	Inco Ltd. (Morgan 0010)				63															
26	Inco Ltd. (Morgan 0010)				64															
27	Inco Ltd. (Morgan 0010)				68															
28	Inco Ltd. (Morgan 0010)				68															
29	Inco Ltd. (Morgan 0010)				68															
30	Inco Ltd. (Morgan 0010)				70															
31	Inco Ltd. (Morgan 0010)				49															
32	Inco Ltd. (Morgan 0010)				49															
33	Inco Ltd. (Morgan 0010)				49															
34	Inco Ltd. (Morgan 0010)				49															
35	Inco Ltd. (Morgan 0010)				49															

MORGAN TOWNSHIP

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY			
COMPANY/AUTHOR (file number)																				
36	Inco Ltd. (Morgan 0010)				49															
37	Inco Ltd. (Morgan 0010)				49															
38	Inco Ltd. (Morgan 0013-B1)				50															
39	Inco Ltd. (Morgan 0013-B1)				53															
40	Inco Ltd. (Morgan 0013-B1)				54															
41	Inco Ltd. (Morgan 0013-B1)				63															
42	Inco Ltd. (Morgan 0017)	53										53								
43	Inco Ltd. (Morgan 0016)											50	50							
44	Lake Kozak Mines Ltd. (Morgan 0014-A1)	70										70	70							
45	Mungovan, T. (Morgan 0013-A1)	53										53								
46	Noramco Exploration Inc. (Levack SP-001)								87	87										
47	Sandcherry Mines Ltd. (Morgan 0014-B1)				62 63															

GDIF FORM NO. 3

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY			
COMPANY/AUTHOR (file number)																				
48	Sandcherry Mines Ltd. (Morgan 0014-B1)				62 63															
49	Sudbury Northrim Mines Ltd. (Lumsden 0012)	52						52												
50	Sudbury Northrim Mines Ltd. (Lumsden 0012)	52						52												
51	Sudbury Northrim Mines Ltd. (Lumsden 0012)	52						52												
52	Westfield Minerals Ltd. (Morgan 0011-A1)				61															
53	Westfield Minerals Ltd. (Morgan 0011-A1)				61															

DRILLHOLE SUMMARY

Map Drilling Location Number	Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
1	Falconbridge Nickel Mines Ltd.	M-38	1983	N20W	49	24	707	--	--
2		M-XC-4	1953	N	45	--	360	minor py, cpy	--
2		M-XC-1	1955	N35E	40	--	360	minor py, cpy	--
2		M-XC-1	1954	N10E	45	--	179	minor py, cpy	--
2		M-XC-2	1954	N10E	53	--	181	minor py, cpy	--
3		M-XC-1	1951	S80E	45	--	300	minor py	--
4		M-XC-2	1951	S80E	60	--	260	minor py	--
5		M-XC-1	1952	N10E	40	--	500	minor py	--
5		M-XC-2	1952	N10E	60	--	410	minor py	--
5		M-XC-3	1952	N10E	73	--	260	minor py	--
6		M-14	1968	N20W	50	8	518	minor py	--
6		M-15	1968	N20W	50	6	543	minor po	--
7		M-16	1968	N20W	45	7	619	minor py	--
8		M-32	1972	--	90	--	116	--	--
8		M-33	1972	--	90	--	116	--	--
8		M-34	1972	--	90	--	116	--	--
9		M-17	1968	N20W	45	32	631	po,cp,py	--
10		M-XC-1	1958	N40E	42	--	219	--	--
10		M-XC-2	1958	N40E	46	--	184	--	--
10		M-XC-3	1958	--	--	--	243	--	--
10		M-XC-4	1958	--	--	--	154	--	--
11		M-XC-2	1961	--	90	--	376	py	--
12		M-XC-1	1961	--	90	--	460	--	--
13		M-XC-1	1960	--	vert	--	118	py	--
13		M-XC-2	1960	--	vert	--	112	py	--
13		M-XC-3	1960	--	vert	--	111	py	--
14		M-XC-3	1961	--	vert	--	600	massive cp-4"	--
15	Inco Ltd.	5998	1950	--	vert	6	2800	--	--
16		5999	1950	--	vert	14	3402	--	--
17		5996	1951	--	vert	10	209	py	--
18		6000	1950	--	vert	13	2398	py	--
19		7466	1950	--	vert	27	1284	py	--
20		7467	1950	--	vert	12	600	--	--

GDIF FORM NO. 3

DRILLHOLE SUMMARY

Map Drilling Location Number	Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
21	Inco Ltd. (cont'd)	7468	1950	--	vert	12.5	1519	--	--
22		7469	1950	--	vert	15	1561	--	--
23		7470	1950/51	--	vert	7	3402	--	--
24		7471	1950	--	vert	5	1204	--	--
25		7472	1950	--	vert	30	1084	py	--
26		23351	1963	--	vert	5	2201	--	--
27		23352	1963	--	vert	14	3603	--	--
28		23362	1963	--	vert	6	811	py	--
29		26428	1964	--	vert	388	900	py	--
30		36956	1968	--	vert	8	600	--	--
31		36957	1968	--	vert	11	821	--	--
32		36958	1968	--	vert	10	901	--	--
33		36959	1968	--	vert	26	904	--	--
34		41256	1970	--	vert	8	401	--	--
35		1772	1949	N	70	9	400	--	--
36		1793	1949	N28E	45	3	360	--	--
37		1794	1949	N20W	45	3	363	--	--
38		1795	1949	E	45	5	247	--	--
38		1796	1949	E	60	5	115	--	--
39		1797	1949	N	45	7	362	--	--
40		1798	1949	N	70	7	414	--	--
41		1799	1949	N	75	8	286	--	--
42		1800	1949	N	70	4	379	--	--
43		5997	1950	--	vert	8	3280	py	--
44		10643	1953	N	30	8	187	po, py	--
45		10671	1953	--	vert	5	2205	py, py, cp, Zn	--
46		10672	1953	N	75	5	855	po, py	--
47		10673	1953	N.W.	45	10	506	po	--
48		19674	1953	W	30	12	372	po, py, Zn, cpy	--
49		10675	1953	W	45	10	277	py, po	--
50		10676	1953	W	45	8	303	py, po, cp, Zn	--
51		10677	1953	W	45	8	597	po, py	--
52		10678	1953	N.W.	40	4	683	po, py	

GDIF FORM NO. 3

DRILLHOLE SUMMARY

Map Drilling Location Number	Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
53	Inco Ltd. (cont'd)	10679	1953	N	41	9	400	po, py, cp, sp	--
54		10680	1953	N	30	10	438	po, py, cp, sp	--
55		11737	1954	N	30	11	600	--	--
56		23364	1963	--	vert	7	650	--	--
56		23366	1963	N70E	70	5	354	--	--
57	Sandcherry Mines Ltd.	M-XC-3	1962	--	70	9	360	py	--
58		M-XC-7	1963	--	70	3	523	py	--
58		M-XC-8	1963	--	70	--	560	py	--
59		M-XC-1	1962	--	70	11	720	py	--
60		M-XC-1	1963	--	70	7	472	py	--
60		M-XC-2	1963	--	70	7	638	--	--
60		M-XC-3	1963	--	70	--	663	--	--
60		M-XC-4	1963	--	70	--	387	--	--
61		M-XC-2	1963	-	70	7	520	py	--
61		M-XC-5	1963	--	70	13	781	py	--
61		M XC-6	1963	--	70	-	779	py	--
62	Westfield Minerals Ltd.	M-XC-4	1961	--	70	7	720	py	--
63		M-XC-5	1961	--	70	12	520	py	--
64		M-XC-6	1961	--	70	3	360	py	--

GDIF FORM NO. 3

12 MORGAN TOWNSHIP

AIRBORNE GEOPHYSICAL SURVEY DATA

No.	By For	Type of Survey	Flight Altitude	Flight Line Direction	Flight Line Spacing
12	Aerodat Limited Falconbridge Nickel Mines Ltd.	Airborne Magnetic & Electromagnetic	120'	North-South at a bearing of 335°	200 m
11	Aeromagnetic Surveys Limited Falconbridge Nickel Mines Ltd.	Airborne Magnetic	?	?	660'
46	Aerodat Limited Noramco Explorations Inc.	Airborne Magnetic & Electromagnetic	60 m	N-S	100 m

GDIF FORM NO. 4

MURGAN TOWNSHIP

Map Sample Site Reference Number	GEOCHEMICAL SURVEY DATA		By	Reference
	Type of Survey	Analysis For		

GDIF FORM NO. 5

MISCELLANEOUS DATA

AGE DATING

Site	Method	Material	Reference	Result

GDIF FORM NO.6

NEWSPAPER CLIPPINGS FILE

NOTE: A file of newspaper clippings about the companies listed below, who have worked in this area, is maintained in the Regional/Resident Geologist's Office.

Westfield Minerals

Northern Miner June 8, 1961

ODM GENERAL INDEX SEARCH

Words searched:

CAYAS LAKE
FALCONBRIDGE NICKEL MINES LTD.
INCO LTD.
ISLAND CREEK
LAKE KOZAK MINES LTD.
MOOSE CREEK
MORGAN LAKE
MORGAN TOWNSHIP
MUNGOVAN, T.
NORAMCO EXPLORATION LTD.
RUDY'S LAKE
SANDCHERRY CREEK FAULT

Index Volume	Listing:	Report Volume	Part	Page
1	ISLAND CREEK, Sandcherry River, Vermilion River			
	Rocks	14	3	68-69
	Terrace	14	3	103-106
1	MORGAN TP., Sud.			
	Glaciation	14	3	102-106
	Gossan absent in N.E. portion	14	3	16
	Nickel prospecting	10	-	152
	Rocks	12	-	274
	greenstone	1	-	75
	eruptive	10	-	206
	nickel bearing	13	1	200,208
		14	3	11,62,68-71
	petrographical notes	14	3	110
1	SANDCHERRY RIVER, Vermilion River, Sud.			
	Beaches	14	3	106
	Moraines east of	14	3	102
	Nickel near	13	1	199
1	SUDBURY NICKEL RANGE, SUD.			
	Explorations in			
	Maps, coloured geological	1	-	--
		9	-	--
		14	3	--
		23	1	204
1	ROCKS			
	Granite	20	1	282
	Nickel eruptive, analysis	19	2	104
	Norite	16	2	60,163
	analysis	19	2	99,103
		19	2	106
	Whitewater series	17	-	205
		22	2	123
1	SUDBURY SERIES			
	Description	23	1	236
	Sudbury nickel range	22	2	134
		23	2	230,231
2	MOOSE CREEK, Onaping river			
	Gravel plains; rocks	29	1	206,207

GDIF FORM NO. 9

ODM GENERAL INDEX SEARCH

Words searched:

SANDCHERRY MINES LTD.
SUDBURY BASIN
SUDBURY NICKEL RANGE
SUDBURY NORTH RIM
WESTFIELD MINERALS LTD.

Index Volume	Listing:	Report Volume	Part	Page
2	MORGAN TP., Sud.			
	Gossan outcrops few	29	1	206
	Keweenawan band, width	34	8	4
	Nickel deposits	N.C.	R35	R207
2	SUDBURY DIST.			
	Igneous rocks and their relation to the ore deposits	34	8	--
2	SUDBURY NICKEL RANGE			
	Cross-section, theoretical	N.C.		R121
	Geology, notes	N.C.		R105-125
	Literature	N.C.		R210
	Report	34	8	
	Historical notes,	N.C.		R20-67
	Rocks	31	2	350
	nickel eruptive, notes and analyses	N.C.		R115-125
	norite, analyses	N.C.		R118,176
3	MORGAN TP., SUD.			
	Breccia, photo	15	3	38
3	SUDBURY BASIN, Sudbury area			
	Description	43	2	
	Report on, by A. G. Burrows and H. C. Rickaby	38	3	
3	SUDBURY DISTRICT			
	Sudbury Basin area	38	3	
	Sudbury Nickel field	43	2	
5	SUDBURY NICKEL IRRUPTIVE			
	Faulting in	61	4	24-27
6	MORGAN TP., Sud.			
	Rock	65	3	19, 81
	Structure	65	3	32, 34
6	SUDBURY BASIN AREA, Sud.			
	Geology, report on	65	3	1-56
	See also Map 1956-1	63	3	--
	report on	65	3	57-89
6	SUDBURY NICKEL IRRUPTIVE			
	Age	65	3	88,89
	Faulting	65	3	27,34,38
	Intrusions	65	3	45,59,89
	Origin	65	3	4,8,57-59

GDIF FORM NO. 8

ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page
6	SUDBURY NICKEL IRRUPTIVE, cont'd			
	Thickness	65	3	41
	Structure	66	6	20,21
7	SUDBURY NICKEL IRRUPTIVE			
	Deposits associated with	GR34		33
	Lithology	GR34		19,20
8	SUDBURY NICKEL IRRUPTIVE			
	Petrography			
	Sudbury Area; Sudbury Dist.	GB004		43,45,84
		GR60		29-60
		GR65		22-28
		GR80		26-27
9	FALCONBRIDGE NICKEL MINES LTD.			
	Morgan Tp. area, Sudbury Dist.	MP96		80,87
9	MORGAN TP., SUDBURY DIST.			
	Geology (quaternary) of the Sudbury Basin area	GR181		
	Sand & Gravel	GR181		49,93,94
9	MUNGOVAN, T.			
	Morgan Tp., Sudbury Dist.	MP96		79
9	SANDCHERRY RIVER			
	Morgan Tp.,	GR181		
9	SUDBURY BASIN			
	Sudbury Area, Sudbury Dist.	GR166		191-192
9	SUDBURY NICKEL IRRUPTIVE			
	Analyses, chem			
	Sudbury area, Sudbury Dist.	GR166		151
	Isotopic age (Rb/Sr)			
	Sudbury area, Sudbury Dist.	GR166		148

GDIF FORM NO. 8

ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page

GDIF FORM NO. 8

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
		REGIONAL GEOLOGICAL COMPILATION MAPS		
Burwasser, G. J.	1979	Quaternary Geology of the Sudbury Area, District of Sudbury	OGS Map 2397	1:50 000
Card, K. D.	1966,67	Sudbury Mining Area	ODM Map 2170	1" = 1 mile
Card, K. D., Lumbers, S.B.	1974-75	Sudbury-Cobalt Geological Compilation	OGS Map 2361 (revised)	1" = 4 miles
Dressler, B. O.	1984	Sudbury Geological Compilation	OGS Map 2491	1:50 000
	1983	Sudbury Mining Area, West Part	OGS Map P.2602	1:50 000
Muir, T. L., Taylor, A. B.	1981	Morgan Lake - Nelson Lake Area	OGS Map 2419	1" = 1/4 mile
		GEOPHYSICAL MAPS		
GSC - ODM	1965	Aeromagnetic Map - Chelmsford	1518-G	1" = 1 mile
Gupta, V. K.	1981	Bouger Gravity and Generalized Map of the Sudbury Onaping Lake Area	OGS Map P.2482	1:100 000
ODM - GSC	1965	Aeromagnetic Map - Sudbury Sheet	7067-G	1" = 4 miles
	1976	Uranium Reconnaissance Program Airborne Gamma Ray Spectrometer Survey, Sudbury	Map P.1610	1:250 000
		SURFICIAL, PLEISTOCENE, TERRAIN ENGINEERING		
Burwasser, G. J.	1979	Quaternary Geology of the Sudbury Area	OGS Report 181	

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
Burwasser, G. J., cont'd	1972	Quaternary Geology and Industrial Mineral Resources of the Sudbury Area (West Part)	Map 751	1:50 000
Dept. of Energy, Mines & Resources, Surveys & Mapping Branch	1975	Topographic Map, Chelmsford		1:50 000
Gartner, J. F.	1980	N.O.E.G.T.S. Data Base Map, Cartier	Map 5000	1:100 000
		N.O.E.G.T. Study 94, Cartier Area		
		N.O.E.G.T.S. General Construction Capability Map, Cartier	Map 5004	1:100 000
Sado, E. V. & Carswell, B. F.	1987	Surficial Geology of Northern Ontario	OGS Map 2518	1: 1 200 000
		MINERAL POTENTIAL MAPS		
Innes, D. G., Jost, M.	1977	Nickel Deposits of Ontario, East Central Sheet	Map P.1062 OFR 5327	1" = 16 miles
ODM	1976	Mineral Potential Map of Ontario, East Central Sheet	Map P.1099	1" = 16 miles
Springer, J.	1977	Ontario Mineral Potential, Northern Part of Sudbury Sheet and Part of North Bay Sheet	OGS Map P.1512	1:250 000
		GEOCHEMICAL MAPS		
		No data available as of April 20, 1988		
		GEOLOGICAL REPORTS & MAPS		
Adlington, R. A.	1982	Morgan Tp. - Sudbury Data Series	OGS Map P.2476	1" = 1/4 mile

GDIF FORM NO.9

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
Burrows, A. G.	1929	Sudbury Basin Area	ODM AR 38, pt. 3	Map 38g
Burwasser, G. J.	1976	Quaternary Geology & Granular Resources of the Sudbury Basin Area	OGS OFR 5185	p. 88
	1972	Quaternary Geology & Industrial Mineral Resources of the Sudbury Area (Western Part)	Map P.751	1:50 000
Bussolaro, N., Rousell, D. H., Beswick, A.	1984	Mineralization in the Onaping formation, Sudbury Basin Ontario project 4-A	GSC OFR 1090	
Card, K. D., & Hutchinson, R. W.	1972	The Sudbury Structure; it's Regional Geological Setting	GAC Spec. Paper 10	pp. 67-78
Coleman, A. P.	1905	The Sudbury Nickel Field	BOM AR 14	pp. 95-96
Muir, T. L., Taylor, A. B.	1981	Precambrian Geology of the Morgan Lake-Nelson Lake Area, Sudbury District	OGS Map P.2419	1:15 840
OGS	1982 1980	Summary of Field Work Summary of Field Work	OGS MP 106 OGS MP 96	pp. 73-75 pp. 79-86, 195-197
Thomson, J. E.	1956	Geology of the Sudbury Basin	ODM AR 65, pt. 3	pp. 1-56
	1956	Sudbury Basin Area	ODM Map 1956-1	1" = 1 mile
Wright, J. F.	1958	Sudbury, Ont.	GSC Map 1063a	1" = 8 miles
		JOURNAL ARTICLES, THESES, TECHNICAL REPORTS		
Assad, R. J.	1955	The formation of certain Granite like rocks in the footwall of the Sudbury norite, northwest of the	MP 2	p. 1

GDIF FORM NO.9

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
Assad, R. J., cont'd	1955	Sudbury Basin		
Atwood, W. W. Jr.	1927	Physical features of the Sudbury Basin; M.S., Clark University	MP 2	pp. 67-68
Card, K. D., Hutchinson, R. W.	1972	The Sudbury Structure; its Regional geological setting	GAC Spec. Paper 10	pp. 1-5
Clauson, Victor	1947	Geology of the Sudbury Basin Area, Ontario Canada, Ph.D., Wash.	MP 2	
Desborough, G. A., and Larson, R. R.	1970	Nickel-Bearing Iron Sulfides in the Onaping formation, Sudbury Basin, Ontario	Econ. Geol. Vol.65	pp. 728-730
Guy-Bray, J. V.	1972	New Developments in Sudbury geology	GAC Spec. Paper 10	pp. 1-5
Hewins, R. H.	1971	The Petrology of Some Marginal Rock Along the North Range of the Subury Irruptive	Sudbury Theses File	
Hixon, H. W.	1904	Geology of the Sudbury District	Eng. & Mining J.	pp. 1022-1023
Kindle, E. D.	1933	An analysis of the structural features of the Sudbury basin and their bearings on ore depositions, Ph.D., Wisc.	MP 2	
Popelar, J.	1972	Gravity interpretation of the Sudbury Area	GAC Spec. Paper 10	pp. 103-115
Schandl, E. L.	1982	The feldspar Mineralogy of the Sudbury Complex	MP 2	
Sopher, S. R.	1961	Paleomagnetism Study of the Sudbury Irruptive	MP 2	
Vos, M. A.	1966	The petrology of some Quartz Diorite of the Sudbury Basin, Canada	MP 2	

GDIF FORM NO.9

NOTES AND ADDENDA

INDEX TO AERIAL PHOTOGRAPHS

Scale 1" = 1/4 mile

Year	Roll	Line	Number
1977	22	4630	91-98
	88	4629	80-87
	30	4628	38-45
	88	4627	36-43
	24	4626	119-126
1970	14	4630	261-268
	14	4629	125-133
	21	4628	165-171
	23	4627	170-176
1959	11	4628	81-89

Ministry of Northern Development and Mines

Mines and Minerals Division

Ontario

ONTARIO GEOLOGICAL SURVEY

PROPERTY LOCATION MAP

GEOLOGICAL DATA INVENTORY FOLIO 470

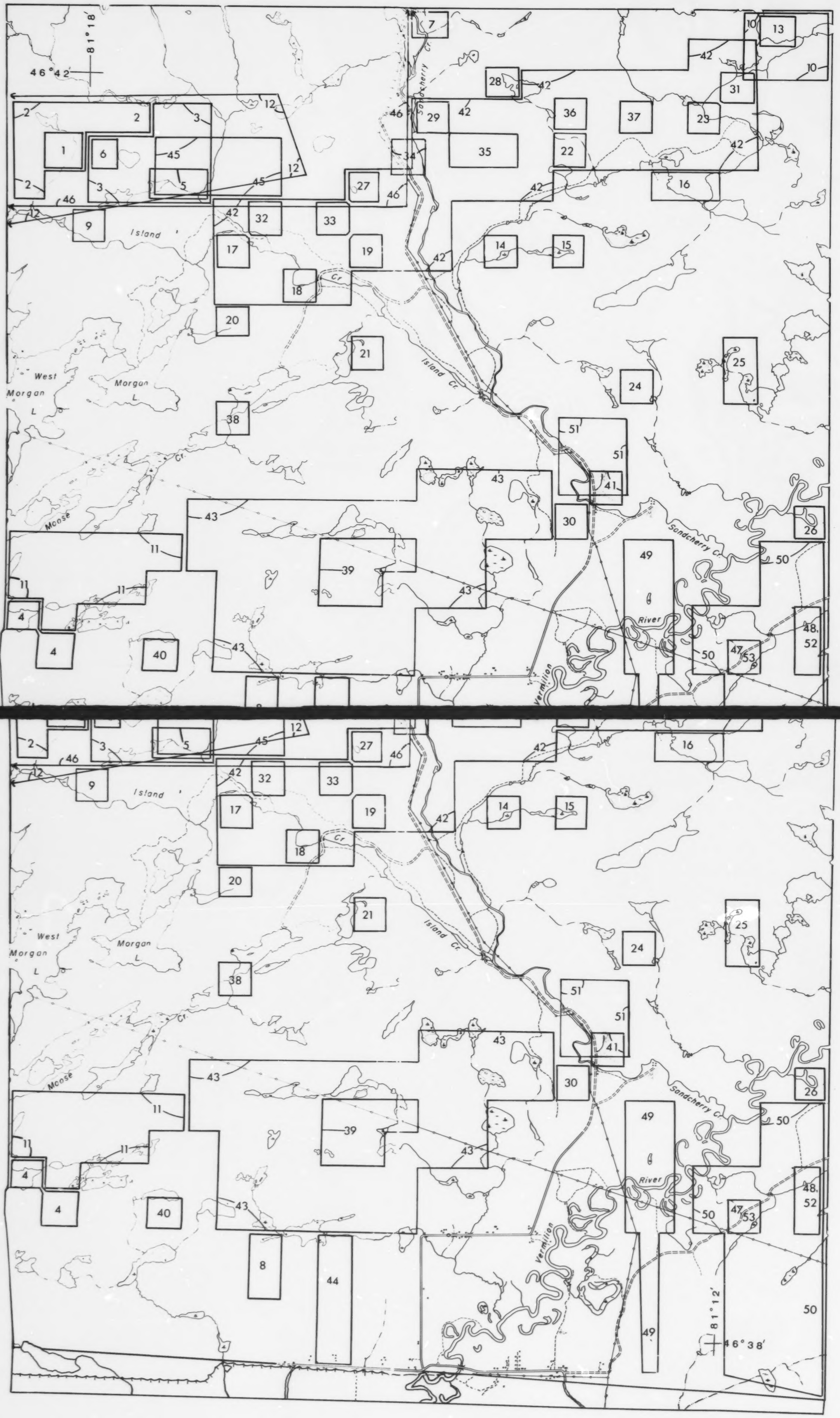
(Map 1 of 2)

MORGAN TOWNSHIP

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile



(Map 1 of 2)

MORGAN TOWNSHIP

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

EXPLORATION DATA FILE AREAS

- Reference number is always inside work area outlined. See listing in text pages.
- Small area of exploration
- File covers whole township or area

TYPES OF DATA SHOWN ON THIS MAP

GEOCHEMICAL AND GEOCHRONOLOGICAL DATA

- Geochemical sample site, with reference number
- Area of geochemical sampling, with reference number
- Age dating material sampling site, with reference number

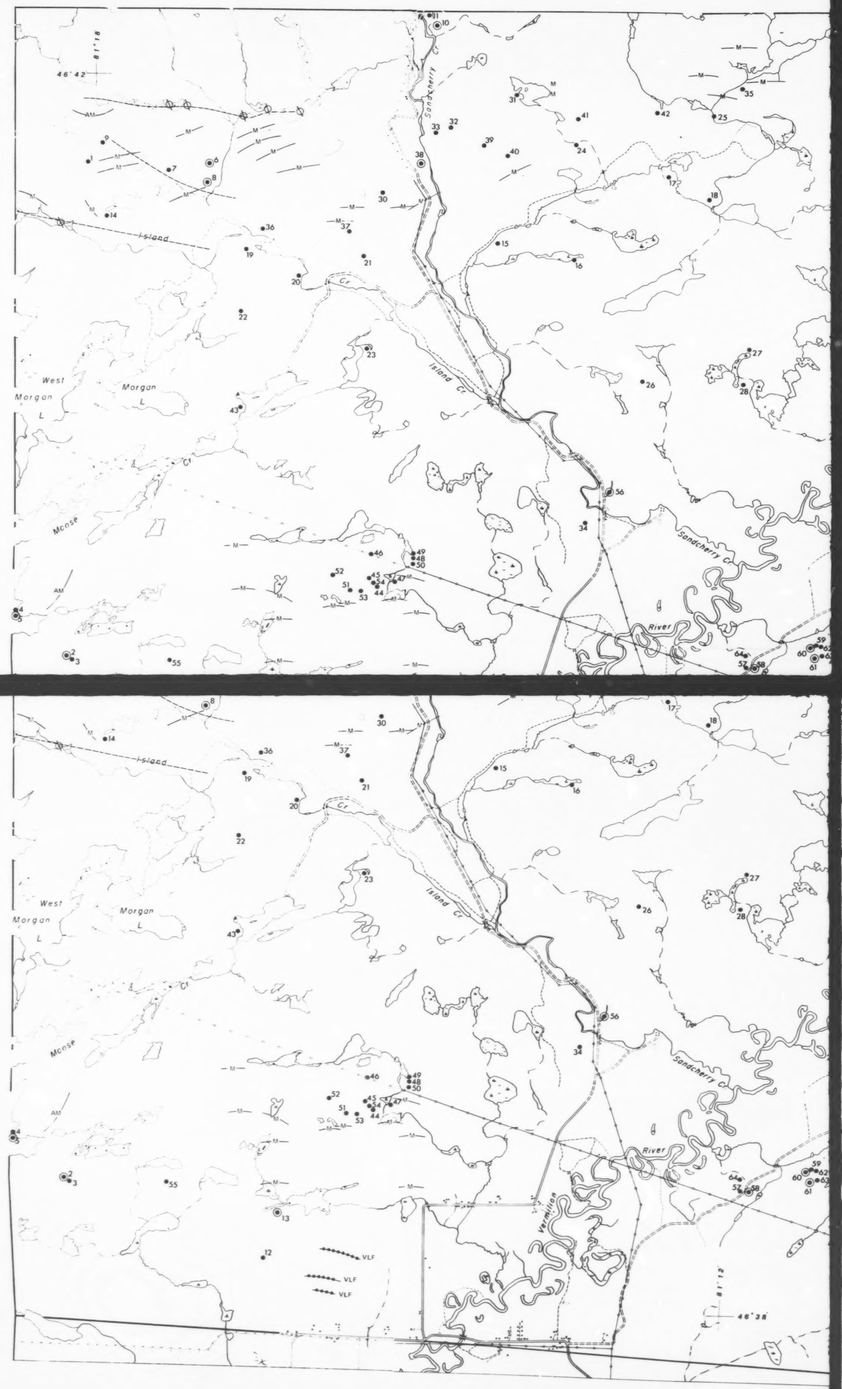
GEOPHYSICAL ANOMALIES

- AM — Airborne magnetic anomaly
- Airborne electromagnetic anomaly Length of anomaly along flight line
- Airborne electromagnetic anomaly Location of anomaly along flight line
- Airborne electromagnetic anomaly Conductor axis: definite, probable, possible
- ARA — Airborne radiometric anomaly
- M — Ground magnetic anomaly
- VL — Ground electromagnetic anomaly (VL Vertical loop, HL Horizontal loop VLF Very low freq., Turam, JEM Crone Em 16)
- RA — Ground radiometric anomaly
- IP — Induced polarization anomaly
- SP — Self potential anomaly
- AFMAG — Audio-frequency magnetic anomaly (total intensity)
- R — Resistivity anomaly
- GR — Gravity anomaly

MISCELLANEOUS DATA

- Trenching, pit
- Rock quarry
- Adit
- Sand and or gravel pit
- Open pit

NOTE: Consult the text that accompanies this map for pertinent lists of data, references, and abbreviations.



GEOPHYSICAL ANOMALIES

- AM — Airborne magnetic anomaly
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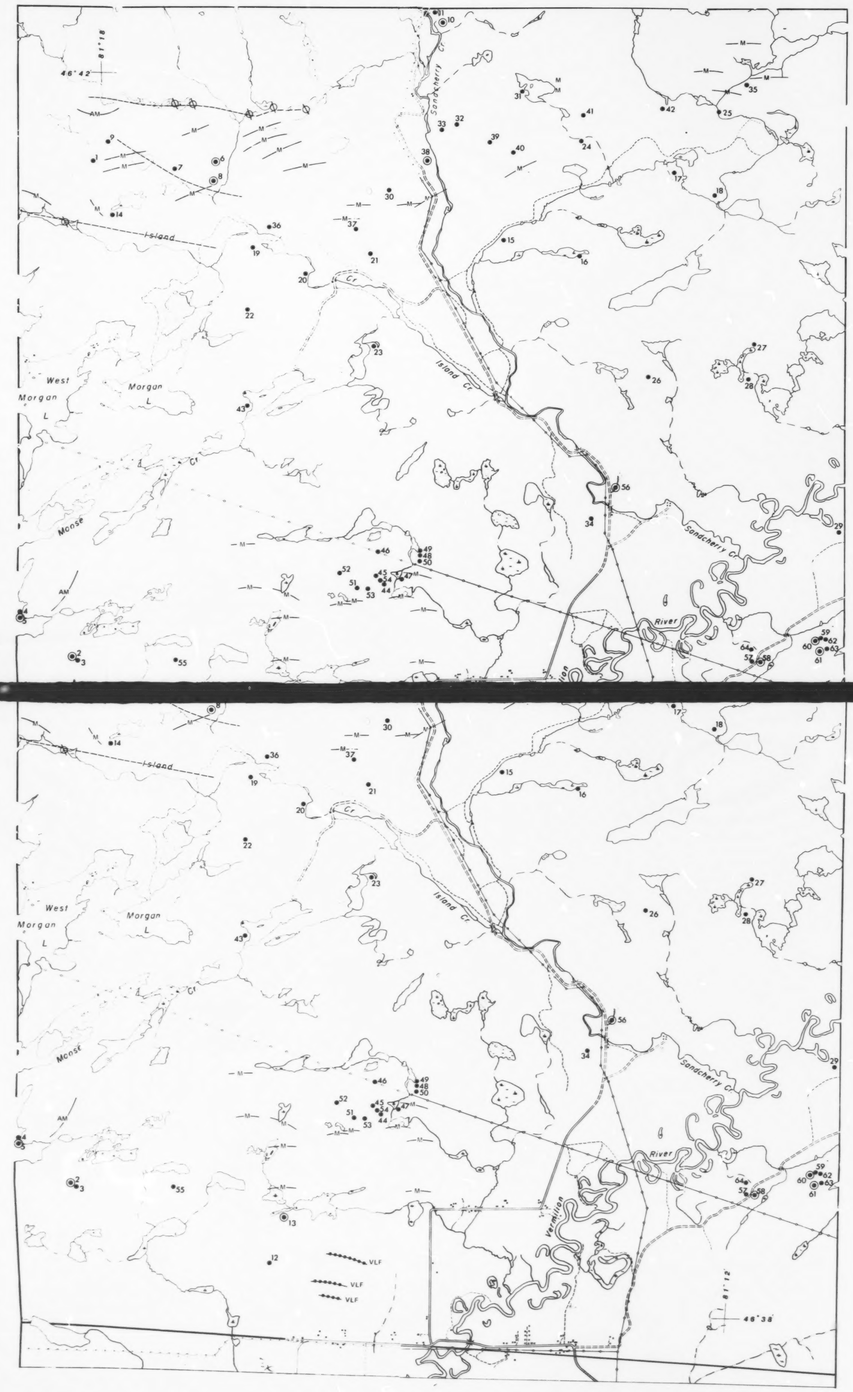

Ontario

Ministry of Northern Development and Mines

Mines and Minerals Division

ONTARIO GEOLOGICAL SURVEY

EXPLORATION DATA MAP

GEOLOGICAL DATA INVENTORY FOLIO 470

(Map 2 of 2)

MORGAN TOWNSHIP

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

GEOLOGICAL AND MINING SYMBOLS

TYPES OF DATA SHOWN ON THIS MAP

MINERAL OCCURRENCES

- cp A — Mineral occurrence at surface, with reference letter
- Au A 64 — Mineral occurrence with shaft, depth given with reference letter
- Ag A — Mineral occurrence reported but exact location uncertain, with reference letter
- cp A — Mineralized float with reference letter
- A — Mineral occurrence in drillhole, with reference letter, and drillhole number

DRILLHOLES

- Location of single drillhole, with reference number
- Location of closely spaced group of drillholes, with reference number
- Drillhole, exact location uncertain, with reference number
- Property with underground drillholes in this general area, with reference number
- Property with drillholes which have not been plotted on map, with reference number
- Reverse circulation drillhole; churn drilling, with reference number

MORGAN TOWNSHIP

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

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